

Supplementary material for:

Patients with Gastric Polyps need Colonoscopy Screening at Younger Age: A Large Prospective Cross-Sectional Study in China

Methods***Sample size estimation***

To predict an appropriate sample size, a pilot study was conducted that included 30 subjects with gastric polyps and another 30 age- and sex-matched subjects without gastric polyps. Eight patients with colorectal polyps were detected in the gastric polyp group, compared with six in the control group. Therefore, we used a prevalence of 0.27 for the gastric polyp group and 0.20 for the control group to calculate sample size. Considering that a maximum of 10% of patients might fail to undergo colonoscopy within six months after EGD, we needed at least 724 subjects per group to achieve at least 85% power at 5% significance. Power Analysis and Sample Size software (PASS, LLC, Kaysville, Utah, USA) was used to calculate the sample size.

Supplemental Table 1: Characteristics of 12 patients with colorectal cancers.

Case no./enrollment year	Age/sex	BMI (kg/m ²)	Family history of CRC	Esophagogastroduodenoscopy		Characteristic of polyps in colonoscopy and TNM staging				Treatment
				Indication	Pathology	Size	Location	Pathology	TNM staging	
Group with gastric polyps										
1/2012	65/female	21.4	No	Epigastric pain	FGP	4.0cm	Descending colon	Adenocarcinoma	Stage I T2N0M0	Surgery
2/2012	36/female	21.4	No	Epigastric pain	FGP	1.5cm	Descending colon	Adenocarcinoma	Stage I T1N0M0	Endoscopically removed
3/2012	65/male	22.3	No	Heartburn	FGP	0.8cm	Rectum	Intramucosal adenocarcinoma	Stage I TisN0M0	Endoscopically removed
4/2013	63/female	21.2	Yes	Screening	FGP	0.8cm	Rectum	Adenocarcinoma	Stage I T1N0M0	Endoscopically removed
5/2013	57/male	22.5	No	Epigastric pain	FGP	4.0cm	Sigmoid colon	Adenocarcinoma	Stage I T1N0M0	Endoscopically removed
6/2013	68/male	18.1	No	Epigastric pain	Hyperplastic polyp	1.5cm	Sigmoid colon	Adenocarcinoma in situ	Stage 0 TisN0M0	Endoscopically removed
7/2013	68/female	24.4	No	Screening	Hyperplastic polyp	2.0cm	Sigmoid colon	Intramucosal adenocarcinoma	Stage 0 TisN0M0	Endoscopically removed

8/2013	51/male	23.6	No	Epigastric pain	FGP	Surrounding the lumen	Rectum-sigmoid junction	Adenocarcinoma	Stage I T2N0M0	Surgery
9/2013	66/female	25.7	No	Screening	FGP	1.5cm	Sigmoid colon	Adenocarcinoma	Stage IV T2NxM1 [#]	Palliative treatment
10/2014	44/female	27.5	No	Screening	FGP	0.4cm	Transverse colon	Adenocarcinoma	Stage I T2N0M0	Surgery
Group without gastric polyps										
12/2012	70/male	15.2	No	Melena	Duodenal ulcer	0.8cm	Sigmoid colon	Adenocarcinoma	Stage I T1N0M0	Endoscopically removed
13/2012	64/male	24.8	No	Screening	Chronic gastritis	2.0cm	Rectum	Adenocarcinoma	Stage I T1N0M0	Endoscopically removed

BMI-body mass index; CRC-colorectal cancer; FGP-fundic gland polys

TNM staging: T-primary tumor, Tis-carcinoma in situ, intraepithelial or invasion of lamina propria, T1-tumor invades submucosa, T2-tumor invades muscularis propria; N- regional lymph nodes, Nx-regional lymph nodes cannot be assessed, N0-no regional lymph node metastasis; M- distant metastasis, M0-no distant metastasis, M1-distant metastasis ([#]liver metastasis in case no. 9).

Supplemental Figure 1. Odds Ratio for detection of colorectal adenomas in pre-specified subgroups.

*the unit for body mass index is kg/m², #the unit for blood glucose and lipid level is mmol/L.

NSAIDS-non-steroidal anti-inflammatory drugs; LDL-low density lipoprotein; HDL-high density lipoprotein.

